Discussion Group: Collaborations

-- What diagnostics are common to each facility represented: (NDCX-II, LCLS, GSI, ...)

-- What diagnostics are unique to each facility. (Are they by necessity unique?)

-- Are there experiments that could cross check results between two facilities?

-- Are there complementary experiments that require two facilities?

-- What types of codes are being used at the various facilities?

-- Are there codes that would be useful at more than one facility? (Can they be shared?)

-- Are there common Equations of State, Conductivity theories, other physics modules that can be shared?

D. Hoffman: Remarks on collaborations

This conference was represented primarily by two ion beam WDM accelerator facilities:
-- LBNL– NDCX-I and NDCX-II
-- GSI – SIS18 and FAIR
There are two other facilities not represented but are major players:
-- ITEP, Moscow, Russia
-- Inst. Mod. Physics, Lanzhou, China
(In addition there are laser facilities, and the X-ray FEL facility LCLS, and others that make up the WDM community)

There are a number of experimental areas that are ripe for collaboration:
--Development of pyrometry for WDM has already been an area of collaboration (First developed in Russia, then Germany, then USA)
Future areas are likely to include:
-- Conductivity measurements; Reflectivity measurements
-- Targets (such as the LAPLAS cryogenic targets and frozen Noble gas targets)

D. Hoffman: Remarks on collaborations (continued)

There are differences between NDCX-II and GSI FAIR beams:
--Ion range is different so diagnostics will not all be the same
--Pulse duration at GSI is long (50 – 100 ns), so shocks were not considered the main area of interest for creating WDM

For collaborations to succeed we must give priority to funding the collaborations. Otherwise nothing will happen.
-- The successful HEDGHOB collaboration (in which the HIFS VNL is a partner in the collaboration) should be strengthened and continued for experiments at GSI and considered a model for collaborative experiments that occur on NDCX-II.